

DAVID E. MORRIS

R&D Manager 4

Center for Integrated Nanotechnologies / Materials Physics and Applications Division

Los Alamos National Laboratory

Phone: (505) 665-6487

Mailstop K771

FAX: (505) 665-9030

Los Alamos, New Mexico 87545

E-mail: demorris@lanl.gov

PROFESSIONAL EXPERIENCE

September 1984 to present

Technical Staff Member / Los Alamos National Laboratory

Positions and Organizations

Center Leader & Co-Director – Center for Integrated Nanotechnologies (MPA-CINT)	2009 - present
Deputy Center Leader – Center for Integrated Nanotechnologies (MPA-CINT)	2008 - 2009
Staff Member/Integrated Spectroscopy Resource and G. T. Seaborg Institute for Transactinium Science	
Phys. Chem. & Applied Spectroscopy Group (C-PCS)	2007 - 2008
Materials Chemistry Group (MPA-MC)	2006 - 2007
Structural Inorganic Chemistry Group (C-SIC)	1999 - 2006
Bioscience/Biotechnology Group (CST-4)	1997 - 1999
Deputy Group Leader - Bioscience /Biotechnology Group (CST-4)	1995 - 1996
Team Leader for Molecular Spectroscopy Applications	
Bioscience / Biotechnology Group (CST-4)	1994 - 1995
Team Leader for Environmental Chemistry	
Spectroscopy and Biochemistry Group (INC/CST-14)	1993 - 1994
Team Leader for Actinide Chemistry	
Nuclear and Radiochemistry Group (INC-11)	1990 - 1992
Staff Member / Actinide Chemistry Team	
Nuclear and Radiochemistry Group (INC-11)	1986 - 1990
Director's Funded Postdoctoral Fellow	
Inorganic and Structural Chemistry Group (INC-4)	1984 - 1986

EDUCATION

North Carolina State University

September 1979 - May 1984 / K.W. Hanck and M. K. DeArmond - Preceptors

Ph.D. degree awarded in Analytical Chemistry, May 1984

University of Colorado at Boulder, September 1978 to May 1979

North Carolina State University

B.S. degree (*Cum Laude*) awarded in Chemistry with Minors in Mathematics and Computer Science, May 1978

HONORS, AWARDS, AND DISTINCTIONS

- Honorary Graduate Fellowship, University of Colorado, 1978-79
- Phi Lambda Upsilon National Chemistry Honor Society
- Phi Kappa Phi National Honor Society
- Doctor's Certificate from Phi Kappa Phi, 1984
Awarded for the most outstanding Ph.D. thesis at NCSU in 1984
- Robert A. Welch Foundation Postdoctoral Fellowship
University of Texas at Austin, 1984
- Director's-Funded Postdoctoral Fellowship
Los Alamos National Laboratory, 1984-86
- Los Alamos Achievement Award, 1997
- Chair, Los Alamos National Laboratory Fellows Selection Committee, 2001
- Leadership Institute, Los Alamos National Laboratory, 2001.
- Management Institute, Los Alamos National Laboratory, 2003
- Chair, LDRD/ER Chemistry & Materials Committee, 2005 & 2006

PROFESSIONAL MEMBERSHIPS

- American Chemical Society
Inorganic Division Nuclear Science and Technology Division
- American Association for the Advancement of Science

RESEARCH INTERESTS / PROJECT HISTORY:

Research interests include fundamental physical chemical studies of electronic structure and excited-state dynamics in transition-metal and f-element coordination and organometallic complexes, and the application of laser-based and conventional spectroscopic methods and electrochemical techniques to problems in actinide chemistry and surface complexation processes on subsurface minerals. Recent major projects as Principal Investigator or Senior Investigator include the ongoing Organometallic Actinide Chemistry task of the Heavy Element Chemistry program sponsored by DOE Office of Basic Energy Sciences, Chemical Sciences, Geosciences and Biosciences Division, an Intelligence Community project, a LANL LDRD ER project (“Redox Interplay Underpinning 4f-Element Metallocene Based Magnetic Systems”), LANL LDRD DR projects (“Understanding Electronic and Magnetic Communication Between f-Electrons in Actinide and Lanthanide Materials,” “Actinide Partitioning at Solid/Solution Interfaces,” and “Understanding and Controlling Charge Transfer Across Classes of Mixed-Valence Materials”), “Aqueous Electrochemical Mechanisms in Actinide Residue Processing” sponsored by the OEM’s EMSP, “Co-contaminant Reaction Chemistry at Interfaces” sponsored by OBER’s Subsurface Science Program, “Chemical and Physical Interactions of Actinides with Residue Surfaces” sponsored by OEM’s 94-1 Core Technology Plutonium Residue Stabilization Program, the “Radionuclide Solubility Task” of OCRWM’s Yucca Mountain Project, and “Characterization of Site Geochemistry of Actinides” for OEM’s Uranium in Soils Integrated Demonstration.

RECENT / CURRENT COLLABORATIONS

Dr. Jaqueline L. Kiplinger – LANL Matls Pysics & Apps Divn
Dr. Kevin John – LANL Chemistry Divn
Dr. Carol Burns - LANL Chemistry Divn
Dr. Kirk Rector - LANL Chemistry Divn
Dr. David Clark – LANL Seaborg Inst.
Dr. Enrique Batista – LANL Theory Divn
Dr. Jeff Hay – LANL Theory Divn
Dr. Rich Martin – LANL Theory Divn
Dr. John Sarrao – LANL Matls Pysics & Apps Divn
Dr. Andy Shreve – LANL Matls Pysics & Apps Divn
Dr. William Woodruff – LANL Chemistry Divn
Dr. Brian Dyer – LANL Chemistry Divn
Dr. Steve Conradson – LANL Matls Sci & Tech Divn
Dr. Antoinette Taylor - LANL Matls Pysics & Apps Divn
Prof. Martin Kirk - UNM
Prof. David Shultz – NCSU
Prof. Rich Reeder – SUNY Stony Brook
Dr. John Zachara – Pacific Northwest National Laboratory
Dr. James McKinley - Pacific Northwest National Laboratory
Dr. Martine Duff – Savannah River Ecology Laboratory

POST-DOCTORAL ASSOCIATES

Dr. John M. Berg
Dr. Catherine J. Chisholm-Brause
Dr. Robert A. Matzner
Dr. Hillary A. Thompson
Dr. Paul B. Duval
Dr. My Hang V. Huynh
Dr. Ryan E. Da Re